

Concepts, Techniques and Tools for the Study of Gravesites

Presentation given at the

Oliver Streiter

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- Asia-Pacific Spatio Temporal Institute, Zhengzhi University Taipei, Taiwan
- Le Centre d'études français sur la Chine Contemporaine (CEFC)
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Presentation given at the Workshop “Introduction to Social Network Analysis (SNA) for the Study of Buddhism and East Asian Religions”, a workshop held in the framework of the FROGBEAR project (From The Ground Up: Buddhism & East Asian Religions) in Singapore August 1-8, 2018

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The ThakBong Project

A Project within the Digital Humanities

- digital representations of research objects
- direct access to the digital (computer vision, machine learning, text search)
- processing, analysis, visualization, archiving
- annotation, interpretation, commenting

The ThakBong Project: Fieldwork

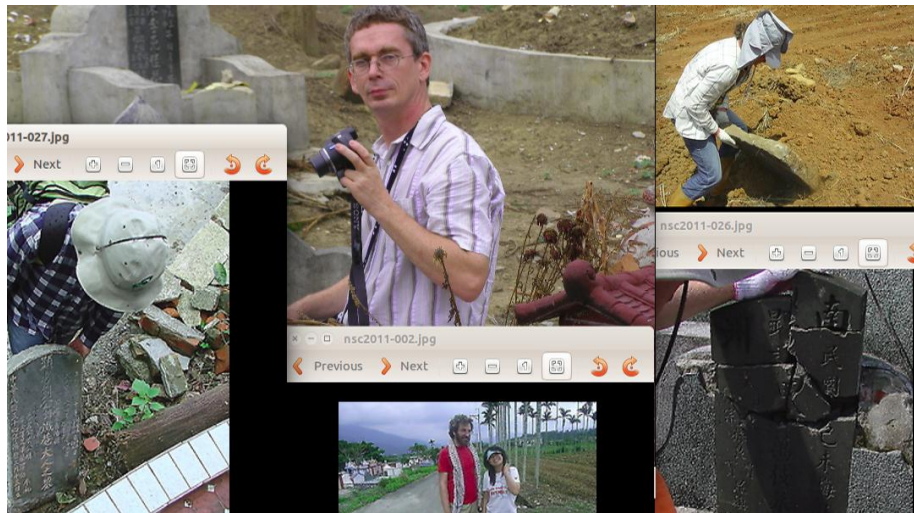


Figure 1

The ThakBong Project: Fieldwork



Figure 2

The ThakBong Project: Fieldwork



Figure 3

The ThakBong Project: Archeology of the Future



Figure 4

Fieldwork History

Sampled per Year

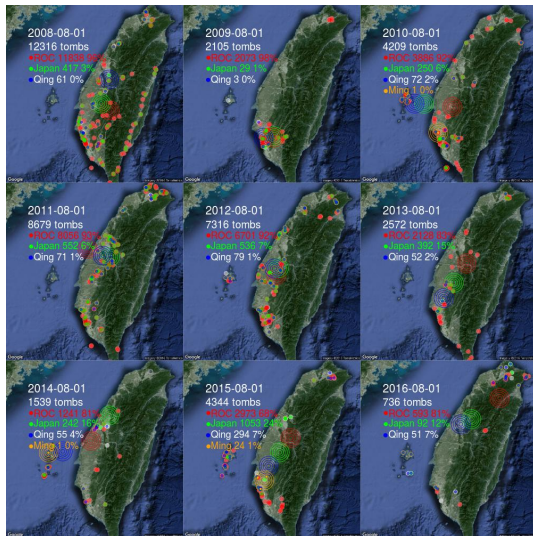


Figure 5

Fieldwork History

Sampled per Year, Cumulative

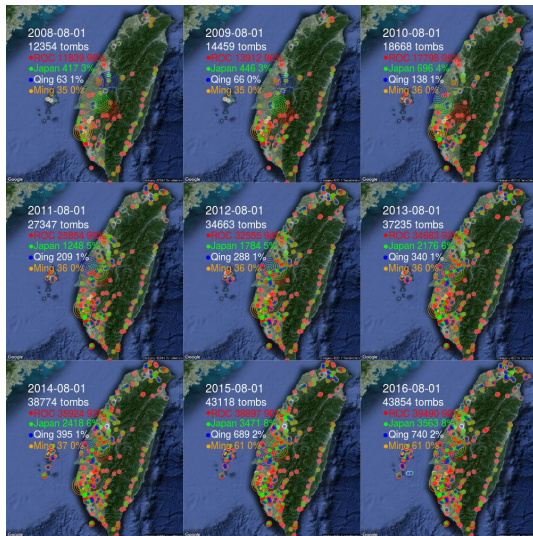


Figure 6

Sample: Earliest Tombstone per Graveyard

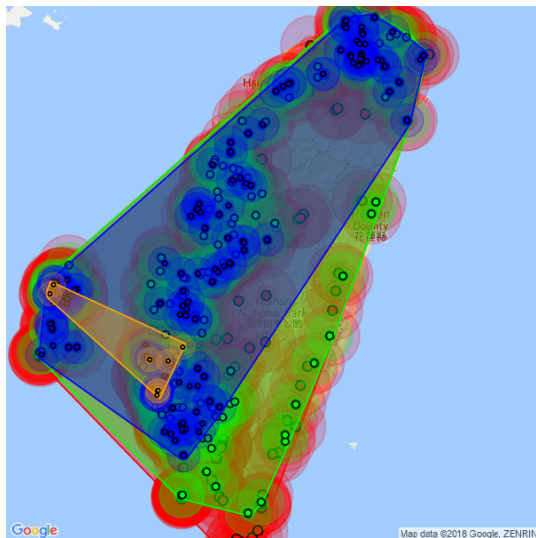


Figure 7

The ThakBong Project: Documentation

Large-Scale Documentation

- since 2007
- 400.000 photos (with GPS, compass)
- 85.000 tombs (42.000 transcribed)
- 1100 days of Fieldwork
- <http://thakbong.dyndns.tv>

Third Party Images:

Local Governments

- Xindian 6.000 photos (jpeg)
- Yanshui 400 photos (paper)
- Gaoxiong 110.000 photos, (jpeg, PDF, Word)
- Penghu 12.000 photos (jpeg, Word, PDF)

The ThakBong Project: Archiving

DANS Data Archiving and Networked Services

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SPOTLIGHT

DANS and Inria sign the MoU for Software Heritage

DANS will collaborate with Inria (France) on the development of the Software Heritage Initiative. On June 30 Inria officially announced the collaboration with DANS with the launch of the Software Heritage website.

Software Heritage

NEWS

Your data paper in Research Data Journal for the Humanities and Social Sciences

RDJ, published by Brill publishers and DANS, is a peer reviewed e-only open access journal. Authors can submit their data papers online.

DANS Retweeted

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Nieuwsbrief Digitale Duurzaamheid is uit: eepurl.com/cbVFRP o.a.
@BeeldenGeluid @DANSKNAW @NA_Archief @KB_Nederland @NieuweInstituut

19 Sep

Figure 8

The ThakBong Project: Archiving

DANS Data deposits:

- Title: thakbong - the data - 2017
- Link: <http://dx.doi.org/10.17026/dans-zvy-rtju>
- Title: thakbong - the media - 2017
- Link: <http://dx.doi.org/10.17026/dans-zmh-2jjs>
- R library and data from <http://thakbong.dyndns.tv/R/>

The ThakBong Project

Collaboration and Support

- Yoann Goudin, Linda Gail Arrigo, Jimmy Chun Huang, David Blundell, Andy Jan, Jiunn-Jye Chuu, Stéphane Corcuff, Lin Chingchi, Ann Meifang Lin, Sandy Kerui Yan, Naiyu Chen, Sandy Lilun Lin, James X. Morris, David Lai, Hanna Yaqing Zhan, Jennifer Liu Yichen, Liu Jixiong, Wi-Vun Taiffalo Chiung (Ui-bun), Sara Yuting Wang, Tammy Iting Liu, Mandy Manwai To, Ares Jing Tang, ...
- Support of the R.o.C. NSC, MOST, National Maritime Parks Headquarter
- Funerary Parlor of Kaohsiung, Xinbei and Yanshui
- Penghu Tourism Bureau



Figure 9



Figure 10

Penghu



Figure 11

Material: Coral Rocks (Penghu)



Figure 12

Material: Coral Rocks (Penghu)



Figure 13

Material: Coral Rocks (Penghu)



Figure 14

Material: Coral Rocks (Penghu)



Figure 15

Material of Tombstones:

Granite



Figure 16

Material of Tombstones:

Granite



Figure 17

Material: Basalt (Penghu)



Figure 18

Material: Basalt (Penghu)



Figure 19

Material: Basalt (Penghu)



Figure 20

Material: Usage of Granite vs. Coral on Penghu

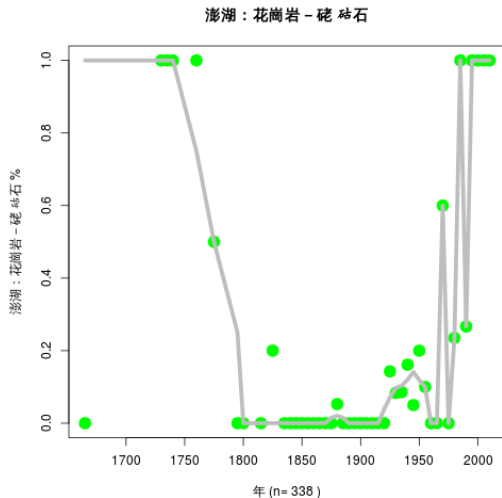


Figure 21

Usage of Granite vs. Basalt on Penghu

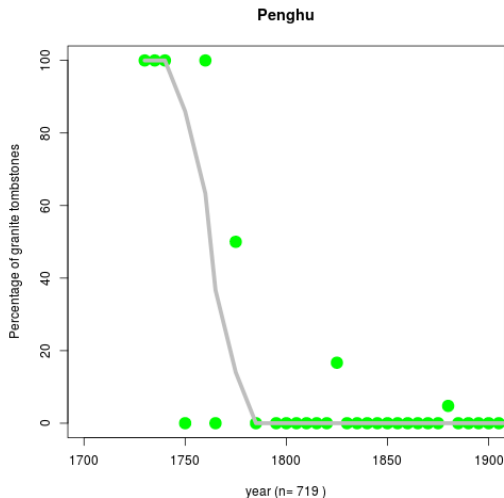


Figure 22

Usage of Granite vs. Mudstone in Kaohsiung

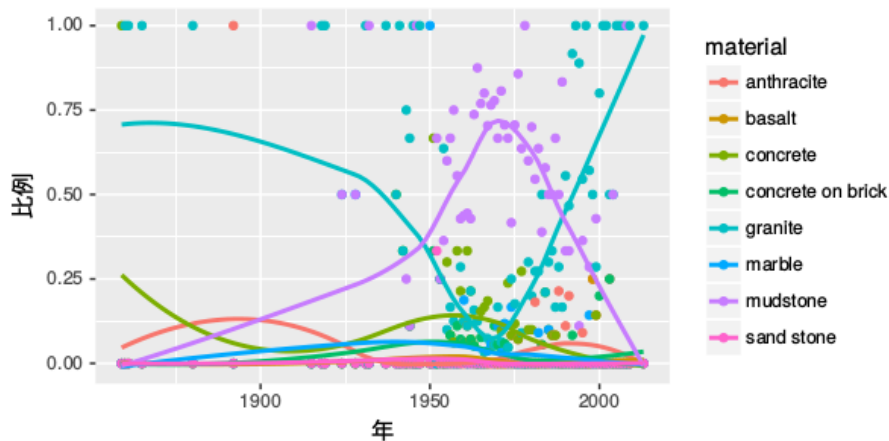


Figure 23

Tools: Luban Chi (Yang)

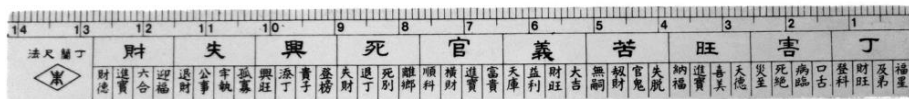


Figure 24

Tools: Luban Yin

1/4		1/3		1/2		1/1		1/0		9		8		7		6		5		4		3		2		1					
本				害				劫				官				義				離				病				財			
興旺	進寶	登科	財至	口舌	病臨	死絕	災至	財失	離鄉	退口	死別	富貴	進益	橫財	順科	大吉	貴子	益利	添丁	失脫	官鬼	劫財	長庚	孤寡	牢執	公事	退財	迎福	六合	寶庫	財德

Figure 25

Tools: Modern Luban



Figure 26

Tools: Penghu Yin

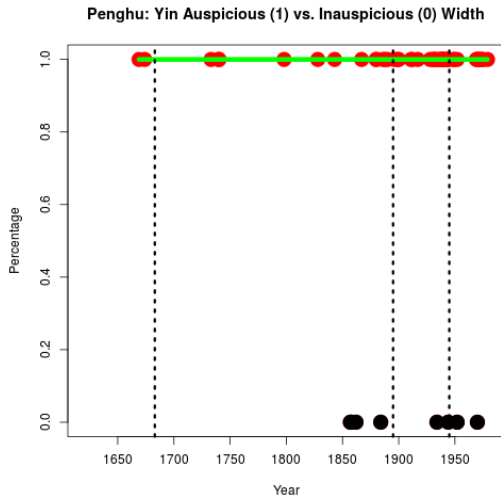


Figure 27

Tools: Penghu Yang

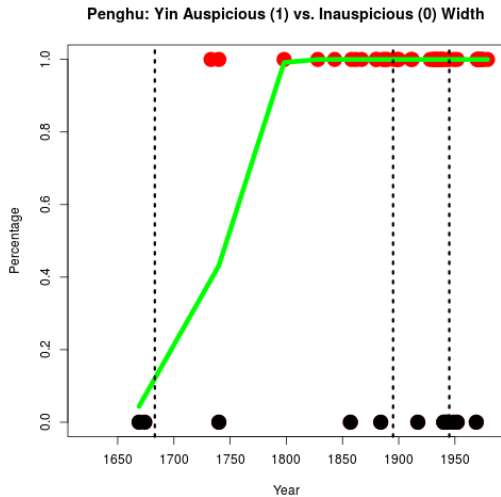


Figure 28

Tools: Number of Characters

Sanskrit: jāti-jarā-vyādhi-maraṇam -> 生老病死

Jāti'pi dukkhā, jarā'pi dukkhā, vyādhi'pi dukkhā, maraṇam'pi dukkham -> 生老病死
苦



Tools: Number of Characters (生老病死苦)

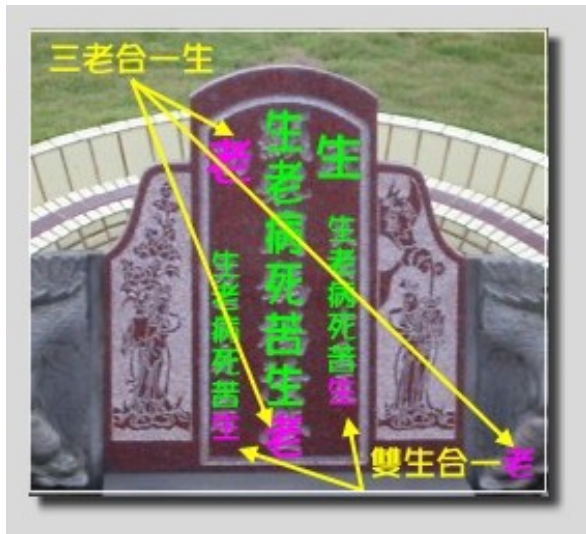


Figure 30

Tools: Number of Characters (生老病死苦)

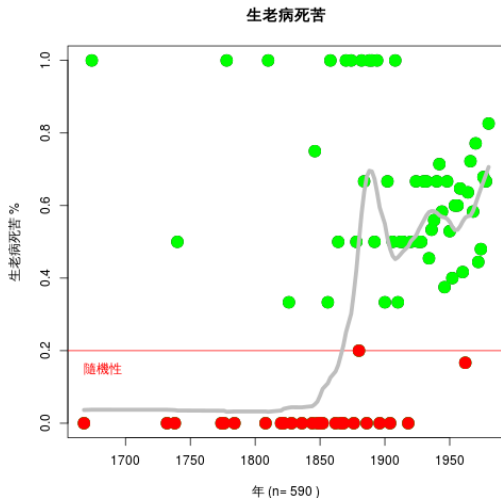


Figure 31

Thematic Hot Spots: Muslim graveyards



Figure 33

Thematic Hot Spot: Muslim graveyards

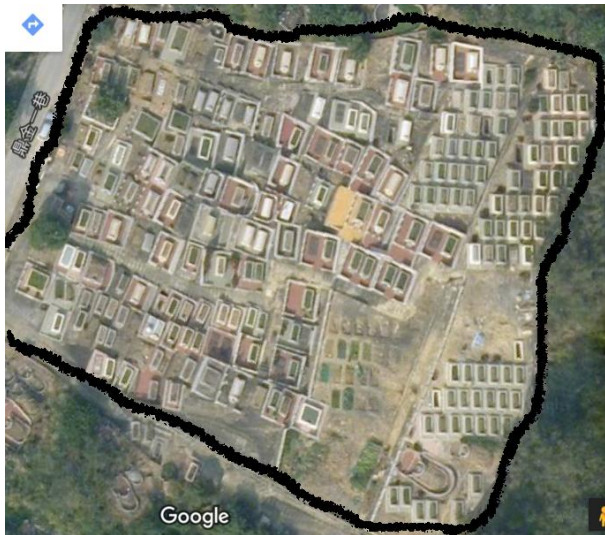


Figure 34

The Carver: 生老病死苦



Figure 35

The Carver: 生老病死苦



Figure 36

The Carver: 生老病死苦

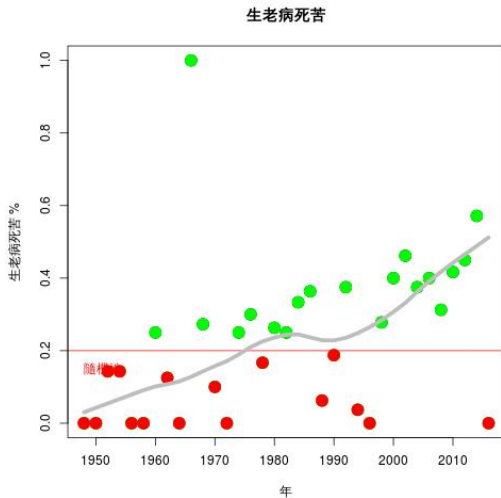


Figure 37

Alternative (泉州)

興旺死絕

- xing2 wang4 si4 jue2
- flourish prosper die terminate
- ok ok bad bad

Tools: Sideflash

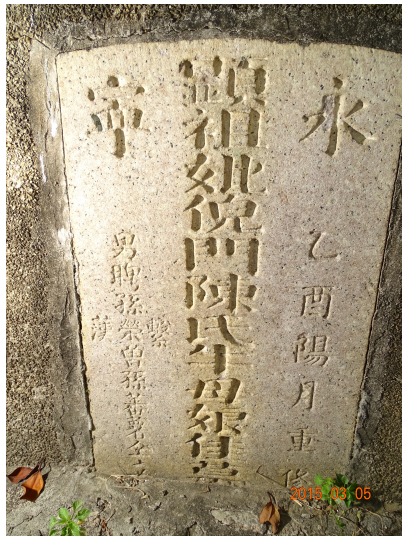


Figure 38

The ThakBong Project: Annotation



Figure 39

The ThakBong Project: Transcription

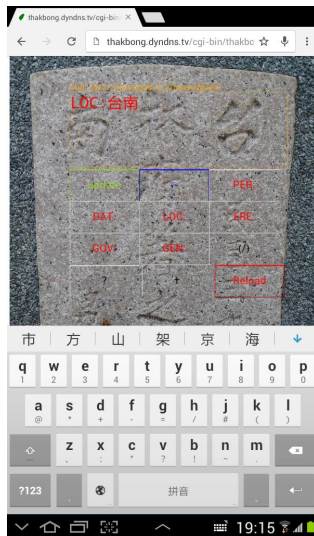


Figure 40

Quality Control

Reverse Engineering

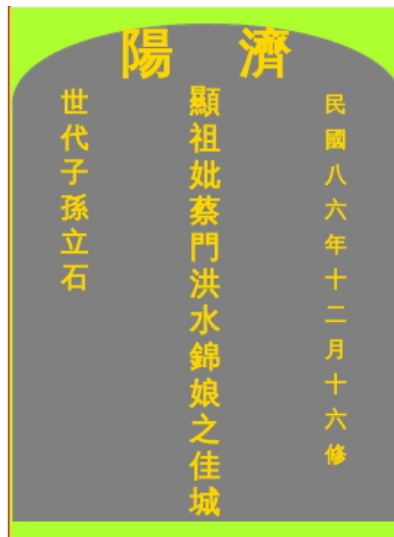
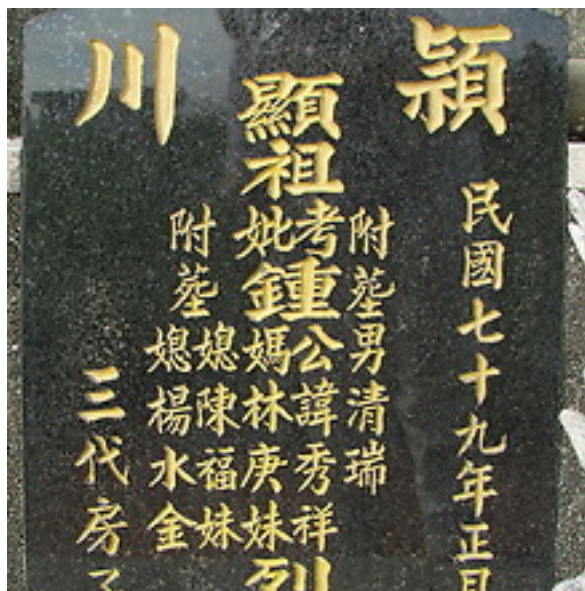


Figure 41

The Tanghao



The Tanghao



The Tanghao: The Reference

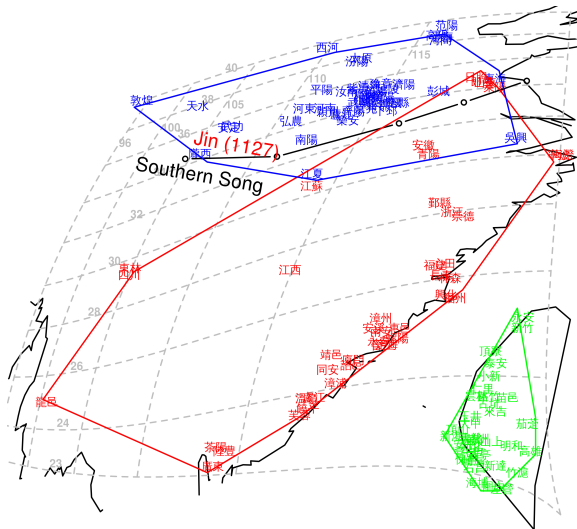


Figure 44

The Tanghao: Usage

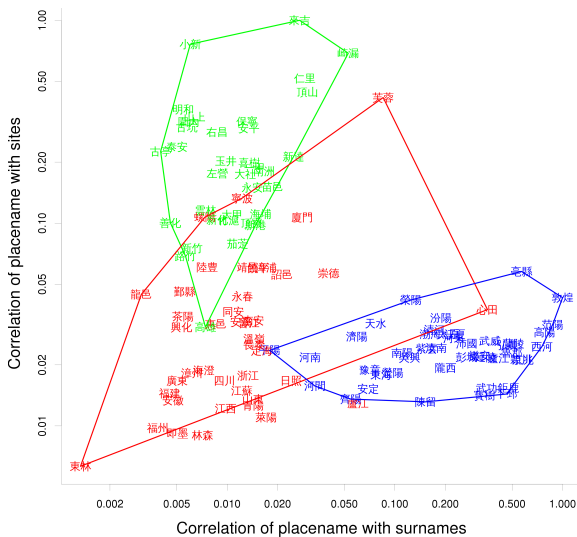


Figure 45

The Tanghao: Onset

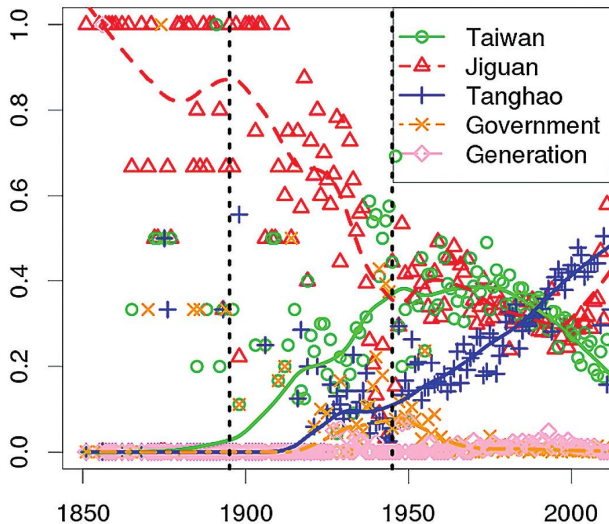


Figure 46

The Tanghao



Character Variation: The Tanghao

Yingchuan



Figure 48

Character Variation: The Tanghao

Yingchuan



Figure 49

Character Variation: The Tanghao

Yingchuan



Figure 50

Character Variation: The Tanghao

Yingchuan

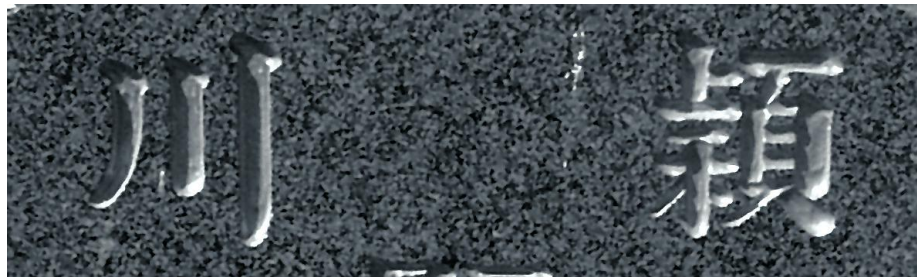


Figure 51

Character Variation: The Tanghao

Yingchuan



Figure 52

Character Variation: The Tanghao

Yingchuan



Figure 53

Character Variation: The Tanghao

Yingchuan



Figure 54

Character Variation: The Tanghao

Yingchuan

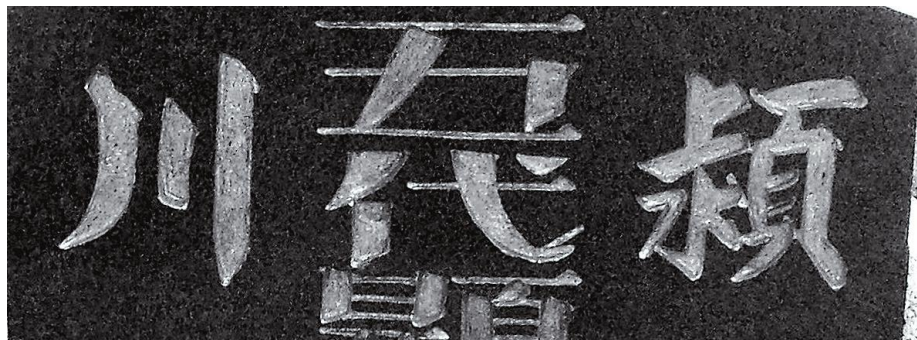


Figure 55

Character Variation: The Tanghao

Yingchuan



Figure 56

Character Variation: The Tanghao

Yingchuan



Figure 57

Character Variation: The Tanghao

Yingchuan



Figure 58

The Tanghao and the State

-The Source of Surnames of the Chinese Nation, 80 Tanghao and 267 Surnames Completely Arranged and Classified by the Provincial Committee for the Cultural Renaissance Movement 中華民祖姓氏源流省文復會完成整理分屬八十堂號二六七姓



The Tanghao: KMT Publication and Tombstone Inscriptions

Comparing SHI, HE and SHUI in time

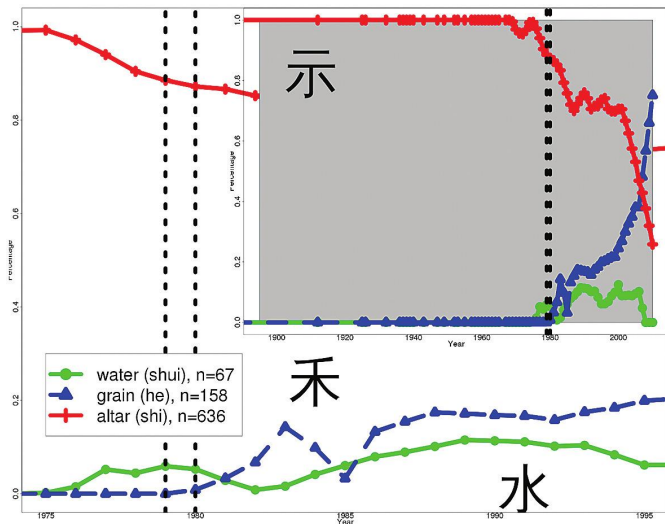


Figure 59

The Tanghao: KMT Publication and Tombstone Inscriptions

Comparing SHI, HE and SHUI in time and space

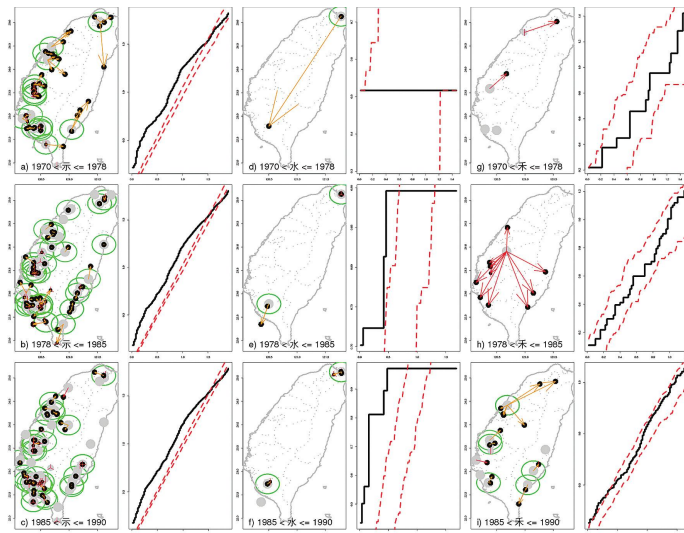


Figure 60

The Focus: Expression of Loyalty (1669)



Figure 61

The Focus: The Expression of Loyalty to the Qing



Figure 62

Local Clusters: Local Carvers

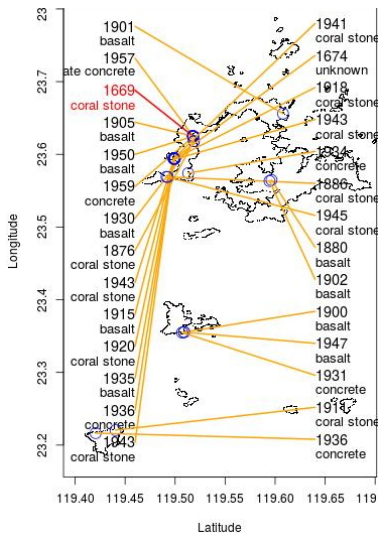


Figure 63

Previous Research, e.g. Wolfgang Franke

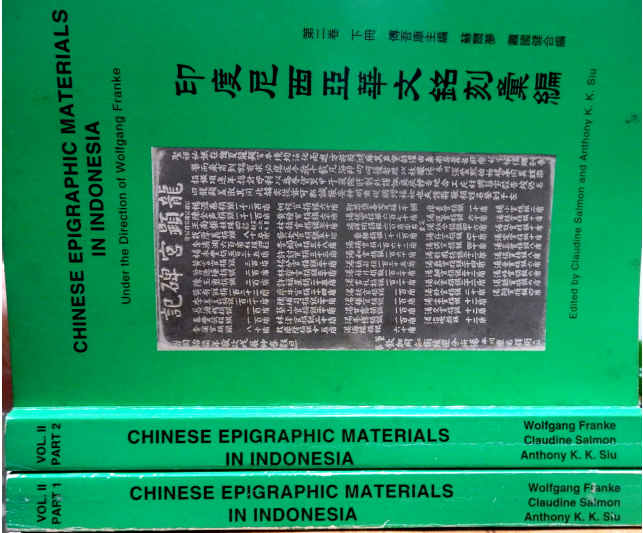


Figure 64

Previous Research, e.g. Wolfgang Franke

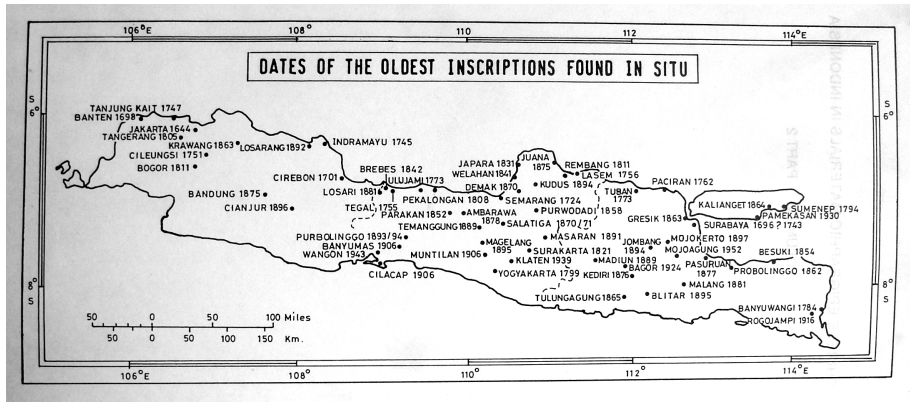


Figure 65

Previous Research, e.g. Wolfgang Franke

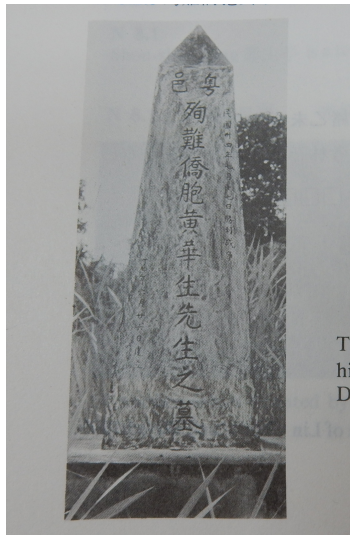


Figure 66

Factor: Hot Spots (thematic): GU

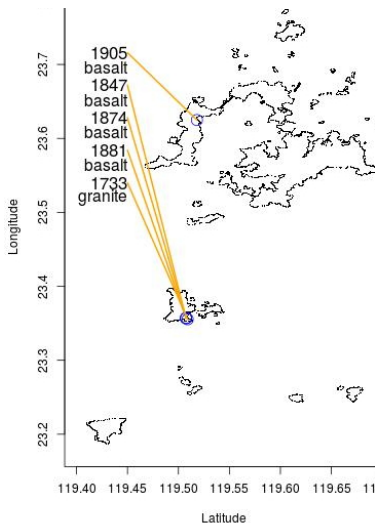
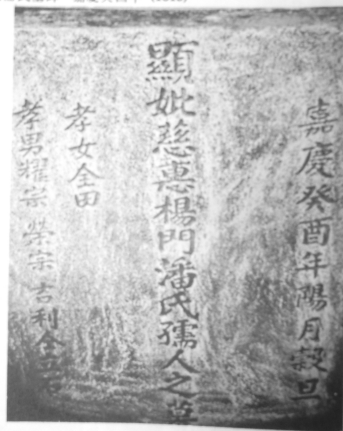


Figure 67

outside the town, since there was no common Chinese cemetery pre-
century.

楊潘氏墓碑 嘉慶癸酉年 (1813)



嘉慶癸酉年陽月穀旦

Figure 68

The Jiguan: Level of Reference



Figure 69

The Jiguan: Level of Reference

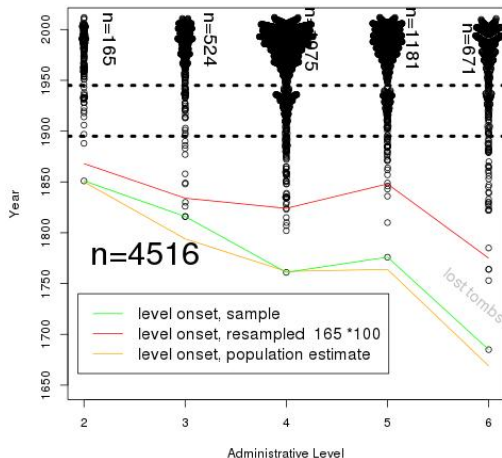


Figure 70

The Jiguan: Level of Reference

Muslims in Kaohsiung

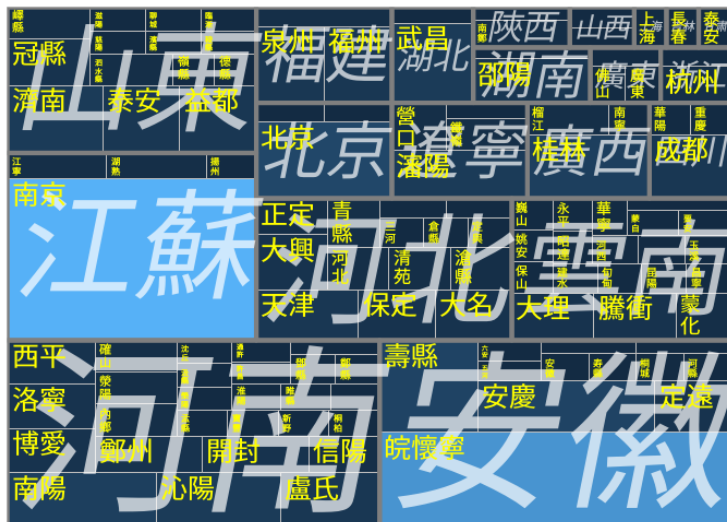


Figure 71

Social Network in Thakbong

Normalized Tables

- People, Tombstones, Places
- People-People
- People-Tombstone
- Tombstone-Place
- ...

Social Network in Thakbong: The Source

Muslims in Kaohsiung

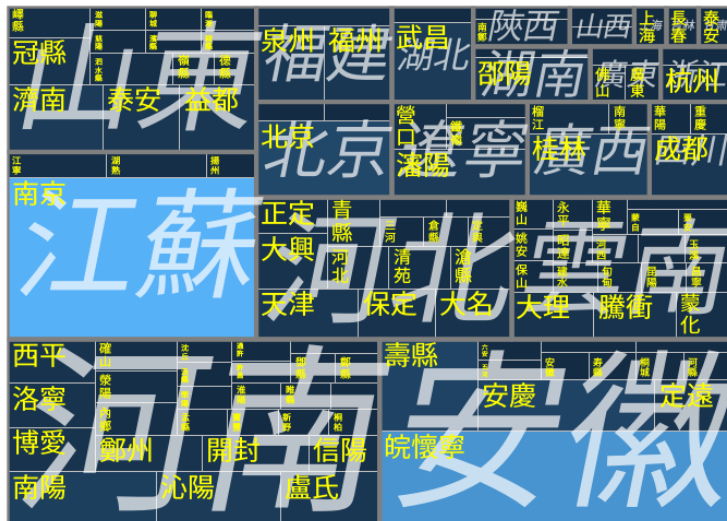


Figure 73

Gephi Data (Kaohsiung Muslim)

<http://mbingenheimer.net/tools/socnet/>

- People - People (North, South)
- People - Places (North, South)